8(6), 14(6)

SOV/112-59-4-6801

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 4, p 57 (USSR)

AUTHOR: Khodney, V. V.

TITLE: Automatic-Control and Protection Panels for Hydroelectric Stations

PERIODICAL: V sb.: Novoye w proyektir. elektr. chasti gidroelektrost. M.-L., Gosenergoizdat, 1957, pp 118-120

ABSTRACT: Standardized panels for automatic control and protection of high-capacity hydroelectric generators were developed by the Central Design Bureau of "Elektroprivod" in 1955. The generators are assumed to be connected either to the busses or to their individual transformers, and the hydroelectric station is supposed to have one all-station control room. The equipment comprises 3-4 panels,  $800 \times 600 \times 2,200$ -mm each, enclosed in cabinets. Essential technical data is tabulated. A new series of equipment for power units, transformers, transmission lines, and general-station outfits has been developed for hydroelectric stations that have no central control room.

Card 1/2

SOV/112-59-4-6801

Automatic-Control and Protection Panels for Hydroelectric Stations

The series comprises 8 standardized makes of equipment. The equipment is supplied from a 110-v DC source; the closing mechanisms of the circuit-breakers are supplied by a special rectifier. Design and schemes of the equipment in the cabinets are briefly described.

S.S.L.

Card 2/2

SERGOVANTSEY, V.T., kand.tekhn.nauk; YURASOV, V.V., kand.tekhn.nauk;

ALUKER, Sh.M., kand.tekhn.nauk; ANDRIANOV, V.N., doktor tekhn.

nauk; ASTAF'IEV, N.N., kand.tekhn.nauk; BUDZKO, I.A., akademik;

BYSTRITSKIY, D.N., kand.tekhn.nauk; VEYALIS, B.S., kand.tekhn.

nauk; GIRSHBERG, V.V., inzh.; GORSHKOV, Ye.N., inzh.; GHI...

CHEVSKIY, E.Ya., inzh.; ZAKHARIN, A.G., doktor tekhn.nauk;

ZLATKOVSKIY, A.P., kand.tekhn.nauk; IOSIPYAN, S.G., inzh.;

ITSKOVICH, A.M., dotsent; KAUFMAN, B.M., inzh.; KVITKO, M.N.,

inzh.; KORSHUNOV, A.P., inzh.; LEVIN, M.S., kand.tekhn.nauk;

LOBANOV, V.N., dotsent; LITVINENKO, A.F., inzh.; MERKELOV,

G.F., inzh.; PIRKHAVKA, P.Ya., kand.tekhn.nauk; PRONNIKOVA,

M.I., kand.tekhn.nauk; SMIRNOV, B.V., kand.tekhn.nauk; FATYU—

SHENKO, S.G., inzh.; KHODNEV, V.V., inzh.; SHCHATS, Ye.L.,

kand.tekhn.nauk; SILIN, V.S., red.; SMELYANSKIY, V.A., red.;

BALLOD, A.I., tekhn.red.; SMIRNOVA, Ye.A., tekhn.red.

[Handbook pertaining to the production and distribution of electricity in agriculture] Spravochnik po proisvodstvu i raspredeleniu elektricheskoi energii v sel'skom khozinistve. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1959. 900 p. (MIRA 13:2)

1. Veesoyusnaya akademiya sel'skokhosyaystvennykh nauk imeni V.I.Lenina (for Budzko). (Rural electrification)

GIRSHBERG, V.V., inzh.; hRODSKIT, Yu.A., inzh.; KIRSHMAN, R.V., inzh.;

MANINOVSKAYA, Z.N., inzh.; TRIFONOVA, T.P., inzh.;

KHODNEK, V.V., inzh.

Large-block mate-of slectric power supply equipment for agriculturs. Elektrotekhnika 34 no.11:1-7 N.\*63.

(MIRA 17:2)

VORONETSKIY, B.B., kand. tekhn. nauk; GIRSHBERG, V.V., inzh.; KHODNEV, V.V., inzh. Transistorized systems for automatic control and protection

of power engineering and industrial systems. Elektrotekhnika 36 no.4:1-6 Ap '65. (MIRA 18:5)

BIRYUKOV, A.V., inzh.; PODARUYEV, A.I., inzh.; KHODNEV, V.V., inzh.;
BORISOV, V.A., inzh.; VOLYNTSEV, F.I., inzh.; KATS, Z.D., inzh.

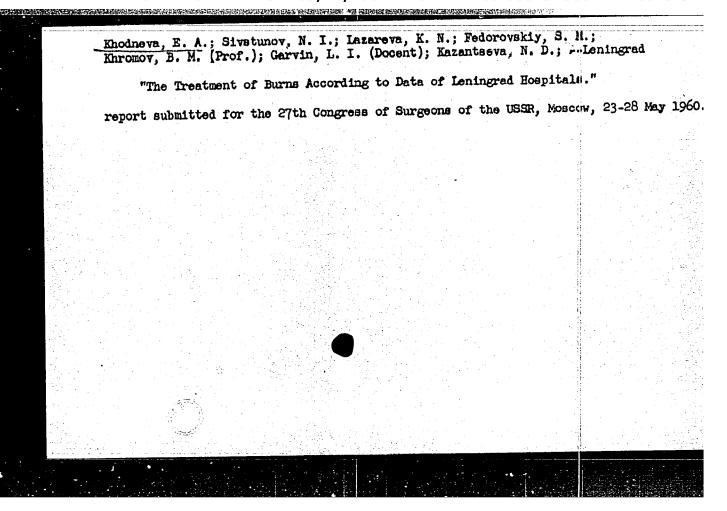
Contactless transistorized protection system for 6-10 kv. distribution units. Elektrotekhnika 36 no.4:7-11 Ap '65. (MIRA 18:5)

**并是为我们是对人的,但是**对我们是是不是我们的,我们就是不是一个人的,我们是我们是我们的,我们就是这一个人的,我们就是这一个人的,我们就是这个人的人们的,我们就是

L 51315-65 ENP(R)/ENT(d)/ENP( CCESSION NR: AP5009788	UR/0293/65/000/004/0011/0014 681.142.67.621.316.925.001.3	
Engineer) Petrukhin B. R. Lu	gineer); Kutler, N. P. (Engineer); Khodne V. V. gineer); Domanitskiy, S. M. (Candidate of I, V. (Candidate of technical sciences)	
FITLE: Transistor logical and functionated for industrial automatic	inctional elements of the standardized ET series	
OURCE: Elektrotekhnika, no. 4	, 1965, 11-14	in the second
TOPIC TAGS: logical element, furtomatic element	unctional element, industrial automation ET	
ABSTRACT. Data on 18 Soviet-o	oads NOR OR AND and MEMORY elements is	
Lift with warning was allow to	ad to operate at LAD- 50C, humidity up to 10% at 1 1 2 10%. The intensity of failure of the	
NEW TOTAL PROPERTY OF THE PROP	sent is 10 5 per hr which is much lower tisn the	

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722120013-3

AGI PESSION NR APSIO978B					
Statistical intensity for talay a intermediate of the number of the number of the statistics of talay and the statistics of talay and a tables.		25 vi bine v	oltage, +	erate 5 Yi	
AESOCIATION: none *4.	ENCL	SUB COD	E IE.		
NORDE SOY, DOD					
Cord 2/2					



21,224

5/142/61/004/001/003/008 E140/E163

AUTHORS:

Bonch-Osmolovskiy, A.G., and Khodnevich, A.D.

TITLE:

Generator of magnetic field pulses with high pulse

repetition rate

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiotekhnika,

1961, Vol.4, No.1, pp. 49-54

Previous literature known to the authors describes magnetic field pulse generators for single impulses or repetition TEXT: rates of 50 or 100 cps. For focusing pulsed electron streams, and other applications, it would be of advantage to have periodic fields with frequencies of the order of hundreds or thousands of The authors describe a vacuum tube circuit for generating periodic bipolar current pulses of the order of several hundred A and duration ~10 µsec and frequencies up to 1300 cps. The tubes used are hydrogen thyratrons, with the frequency controlled by an external generator. The magnetic field is generated by a coil tuned to resonance by a series capacitor. The fields obtained ranged from 10500 0e at 50 cps to 3100 0e at 1300 cps.

Card 1/2

ACC NR: AP7005607

SOURCE CODE: UR/0413/67/000/002/0047/0047

INVENTOR: Tager, A. S.; Khodnevich. A. D.

ORG: none

TITLE: Avalanche-transit oscillator. Class 21, No. 190429

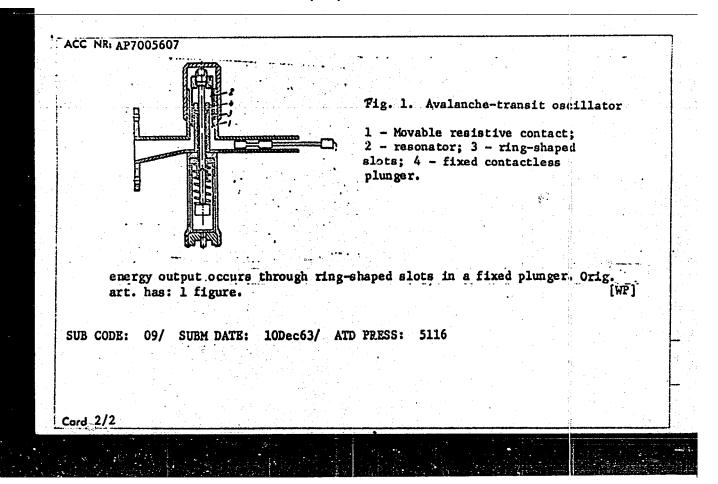
SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 2, 1967, 47

TOPIC TAGS: uhf oscillator, sensor diode, ELECTRONIC Componery

ABSTRACT: An Author Certificate has been issued for the avalanche-transit oscillator with mechanical tuning shown in Fig. 1. To increase output power and tuning range and also to reduce power drop in the tuning range, the movable resistive contact is removed from the resonator of the oscillator and

Card 1/2

UDC: 621.373.1:621.382.2



# BONCH-OSMOLOVSKIY, A.G.; KHODNEVICH, A.D. Generator of pulsed magnetic fields with a great pulse rejetition frequency. Izv. vys. ucheb. zav.; radiotekh. 4 no.1:49-5; Js-F'61. 1. Rekomendovana kafedroy spetsfiziki Leningradskogo elektrotekhnicheskogo instituta im. V.I.Ul'yanova (Lenina). (Magnetic fields) (Oscillators, Electric) (Pulse techniques (Electronics))

## KHODNYA, N.F.

Echinococcosis; data from the clinic of the surgical department for 10 years. Zdravookhr. Kazakh. 23 no.1:30-33 '63 (MIRA 17:2)

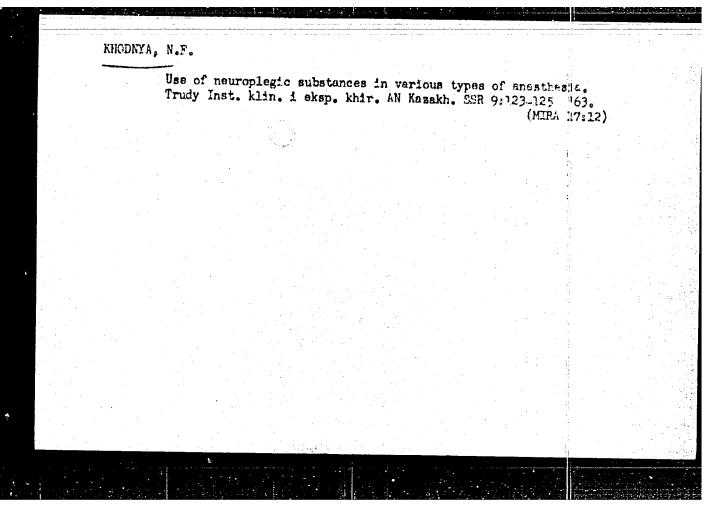
1. Iz kafedry fakulitetskoy khirurgii ( zav. - dotsent N.V. Ionov) Karagandinskogo meditsinskogo instituta.

KHOINYA, N.F., kand.med. nauk; BILICH, G.L.

Echinococcosis in children. Khirurgiia 39 no.4:94-96 Ap'63

(MIRA 17:2)

1. Iz kafedry fakul'tetekoy khirurgii ( zav. - dotsent N.V.
Ionov) Karagandinekogo mediteinekogo instituta i otdeleniya
khirurgii detekogo vosrasta ( zav. G.L.Bilich) 3-y Gorodskoy
detekoy bol'nitsy (glavnyy vrach P.F.Sergeyeva) Karagandy.



1,	KHODOBETS, B. I.	
2.	USSR (600)	
4.	Elastic Rods and Wires	
7.	Power mthod of consecutive approximations in the theory of vibrations of resilient rod systems. Insh.sbor., 13, 2952.	and stability
	현실 경험 기업 등 경험 기업	
	요하는 이렇게 하는 것도 한다. 그는 이 사람들은 사용을 받았다. 그런 그는 사용을 받는 것이 되었다. 	
9.	Monthly List of Russian Accessions, Library of Congress, April	1953, Uncl.
	. 이 보다 보는 경기 시간 보다 보고 있는 것이 되었다. 그런 그 경험이 되었다. 그런 그 경기 있는 것이 되었다. 그런 그 생물을 보고 있는 것이 되었다. 그는 경기 전체 전체 보고 있는 것이 없는 경험 등을 보고 있는 것이 되었다. 그런 그 것이 되었다. 그런 그 것이 되었다. 그런 그 것이 되었다. 그런 그 그런 그 생물을 보고 있는 것이 있는 것이 되었다. 그런 그를 보고 있는 것이 없었다. 전체를 보고 있는 것이 되었다. 그런 그 것이 되었다. 그런 그 것이 되었다. 그런 그 것이 되었다. 그런 그	

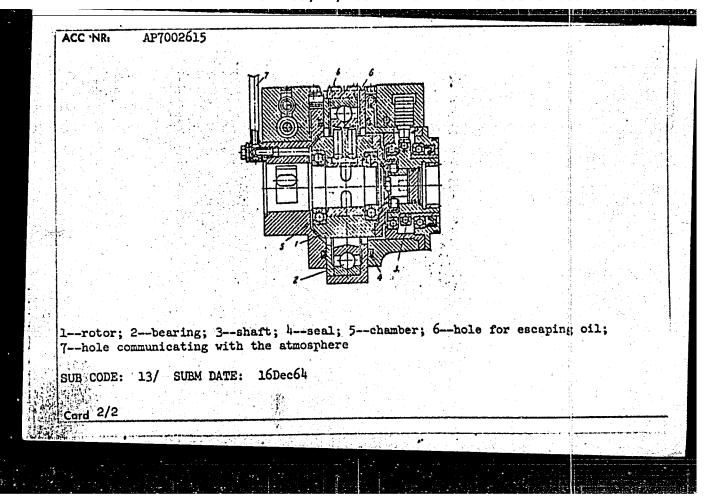
# DEREPA, K.P., dotsent; KHODOBETS, V.S.

Report on the activities of the Vinnitsa Provincial Scientific Society of Otorhinolaryngologists for 1962. Zhur. ush., nos. i gorl. bol. 23 no.5:92-93 S-0'63 (MIRA 17:3)

1. Predsedatel' Vinnitskogo oblastnogo nauchmogo obshchestwa otolaringologov (for Derepa). 2. Sekretar' Vinnitskogo obslastnogo nauchmogo obshchestva otolaringologoc (for Khudobets).

37630-66 EWT(m)/EWP(t)/ETI/EWP(k) JD/HW ACC NR. AP6011266 SOURCE CODE: UR/0413/66/000/006/0119/0119 INVENTOR: Donskoy, O. V.; Khodor, V. Ya. 36 B ORG: none TITLE: Electrochemical method for pipe reconditioning. Class 48, No. 180053 [announced by the Scientific Research Pipe Institute (Nauchno-issledovatel skiy Trubnyy Institut)] SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 6, 1966, 119 TOPIC TAGS: pipe, pipe reconditioning, SODIUM CHLORIOE, AUSTENITIC STEEL ABSTRACT: This Author Certificate introduces an electrochemical method for reconditioning austenitic steel pipe with a solution of sodium chloride. For longer service life the initial pipe is surface treated in a flow-through electrolyte at -8 to +100 with current density of 10 amp/cm2 and higher. [LD] SUB CODE: 13/ SUBM DATE: 310ct63 Card 1/1 021.357.8-462.004 67

(A, N) SOURCE CODE: UR/0413/66/000/023/0129/0130 ACC NR. AP7002615 Golovko, V. Ya.; Spektor, L. A.; Agranat, A. R.; Mezhakov, V. M.; INVENTOR: Khodorchenko, A. S.; Olifir, V. P. ORG: None TITLE: A radial plunger pump. Class 59, No. 189314 [announced by the Gorlovka Machine Building Plant im. S. M. Kirov (Gorlovskiy mashinostroitel'nyy zavod)] SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 23, 1966, 129-130 TOPIC TAGS: hydraulic pump, fluid friction ABSTRACT: This Author's Certificate introduces a radial plunger pump with a rotating cylinder block. The pump is designed for operation as a high-efficiency submerged unit by eliminating oil friction in the rotating components. The cylinder block is enclosed in a chamber with two vent holes, one to permit escape of the oil from the chamber under the effect of centrifugal forces, and the other to prevent the formation of a vacuum in the chamber by communicating with the atmosphere. <u>Card</u> 1/2 VDC: 621.653-728



KHODORCHENKO, V.	V	
KHODORCHENKO, V.	V "Synthesis and Investigation of Copper Borates."  1953 (Dissertation for the Degree of Candidate of Chemical)	Sciences)
V.	k. Nauk Latvivskov SSR, No. 9, Sept., 1955	

SHUL'GIN, I.A.; KHODORENKO, L.A.

Effect of spectral composition and the intensity of radiant energy on the chlorophyll content as related to the length of the photoperiod. Dokl. AN SSSR 156 no. 3:712-714 164. (MIRA 17:5)

1. Institut fiziologii rasteniy im. K.A.Timiryazeva AN SSSR i. Belorousskiy gosudarstvennyy universitet im. V.I.Lenina. Predstavleno akademikom Kursanovym.

GODNEY, T.N.; LESHINA, A.V.; KHODORENKO, L.A.

Variations in the size of chloroplasts and pigment accumulation

in them during prolonged shading and subsequent illumination.

Piziol. rast. 7 no.6:638-644 \*60. (MIRA 14:1)

1. V.I. Lenin Byelorussian State University, Minsk. (Chlorophyll) (Plants, Effect of light on)

KLESHEIN, A.F. [Kliasbnin, A.F.]; KHODOREMEO, L.A. [Wadarenka, L.A.]

Flactid apparatus of organ meet leaves in articicial light.

Vactsi AN BSSR. Ser. btial. nav. no.4157-59 162.

(MIRA 17:6)

# KHODORENKO, L.A.; SHUL'GIN, I.A.

Effect of different illumination conditions on the anatomicomorphological structure of radish leaves. Nauch. dokl. vys. shkoly; biol. nauki no.3:149-153 \*64 (MIRA 17:8)

1. Rakomendovana kafedroy darvinizma Moskovskogo gosudaratvannogo universiteta.

KA	KHNOVICH, L.V., KHODORENKO, L.A.	•	
	Methods of sampling and chlorophyll content computa Fiziol. rast. 11 no.51933-936 S-0 164.		
	1. Belorusskiy gosudarstvennyy universitet, Minsk.	(MIRA 1	1/:10)
		:	
			। शामको स्थापन

22(3)

SOV/174-58-5-31/37

AUTHOR:

Khodorenko, V.Ye., Lieutenant Colonel

TITLE:

Members of the Komsomol in the Fight to Perfect Battery Firing (Komsomol'tsy v bor'be za otlichnoye vypolneniye

boyevykh strel'b)

PERIODICAL:

Artilleriyskiy zhurnal, 1958, Nr 5, pp 44-45 (USSR)

ABSTRACT:

The author describes the procedure at a komsomol battery conference, where the Battery Commander Captain Kushch accused a number of komsomols of negligence and mistakes. The results, as the author states, soon proved to have been beneficial and a number of komsomols distinguished themselves as "perfectionists"

(otlichniki). The team work in training and in the field has improved considerably. At the subsequent training display, the Commander of a higher echelon (unnamed) complimented the unit and issued individual awards:

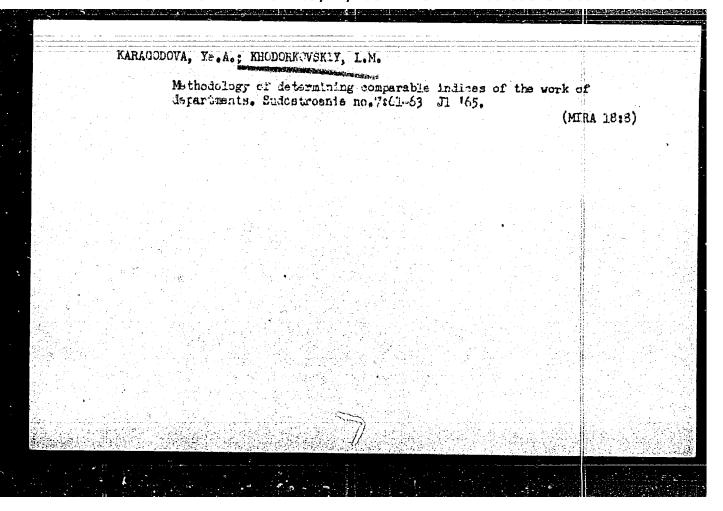
short leaves, gifts, etc.

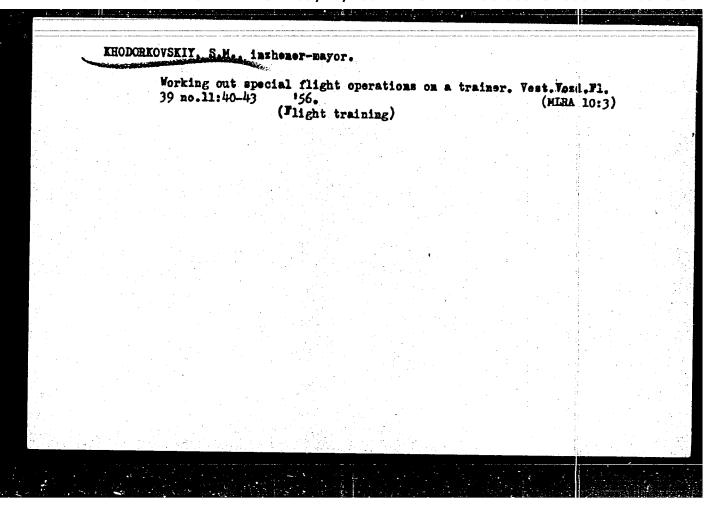
Card 1/1

FERTSEV, L.P., inzh.; KHODORETS, A.N., inzh.; VERUGA, V.F., inzh.

Using a hydrodynamic clutch in the drives of machinery for the chemical industry. Khim.mashinostr. no.1:33-34 Ja-F '64.

(MIRA 17:4)





ACC NRI AR6035379

(N)

SOURCE CODE: UR/0398/66/000/009/A014/A014

AUTHOR: Kornilova, N. N.; Khodorkovskiy, Ya. S.

TITLE: Experimental investigation of the laminar boundary layer on a plate with transverse slot

SOURCE: Ref. zh. Vodnyy transport, Abs. 9A84

REF. SOURCE: Tr. Leningr. korablestroit. in-t. vyp. 48, 1965, 15-18

TOPIC TAGS: laminar boundary layer, laminar flow, fluid flow/T-4 wind tunnel

ABSTRACT: Results are presented of experimental research of the development of a laminar boundary layer on a plate with a transverse slot, through which liquid is drawn. The experiments were made in the T-4 wind tunnel of the Laboratory of Hydromechanics of the Leningrad Shipbuilding Institute. The results are compared with those obtained by the methods of G. V. Lachman and W. Wust. 8 illustrations, Bibliography, 2 titles. [Translation of abstract]

SUB CODE: 20

Card 1/1

UDC: 532.526

ACC NR. AR6034801 (N) SOURCE CODE: UR/0398/66/000/008/A016/A016

AUTHOR: Khodorkovskiy, Ya. S.

TITLE: Calculation of discrete suction of a fluid from a boundary layer

SOURCE: Ref. zh. Vodnyy transport, Abs. 8A95

REF SOURCE: Tr. Leningr. korablestroit, in-ta, vyp. 48, 1965, 47-53

TOPIC TAGS: boundary layer suction, laminar boundary layer, body of revolution

ABSTRACT: The basis parameters of a lamination system with suction are the distance between cracks, the total discharge and local discharge through each crack, the width of the crack, and its structural shape. Calculation of these parameters for wing profiles and bodies of revolution is labor consuming. These parameters can be determined with sufficient accuracy for an equivalent flat plate. The distance between cracks for the flat plate, and the discharge of fluid through a running meter of a crack are calculated. The coefficient of full function resistance for an equivalent flat plate is determined on the part of the length of which fluid is sucked from the boundary layer. Orig. art. has: 7 figures. Bibliography has 7 references. [Translation of abstract]

Cord 1/1 SUB CODE: 20/ UDC: 629. 12:532

ACC NR. AR6034801 (W) SOURCE CODE: UR/0398/66/000/008/A016/A016

AUTHOR: Khodorkovskiy, Ya. S.

TITLE: Calculation of discrete suction of a fluid from a boundary layer

SOURCE: Ref. zh. Vodnyy transport, Abs. 8A95

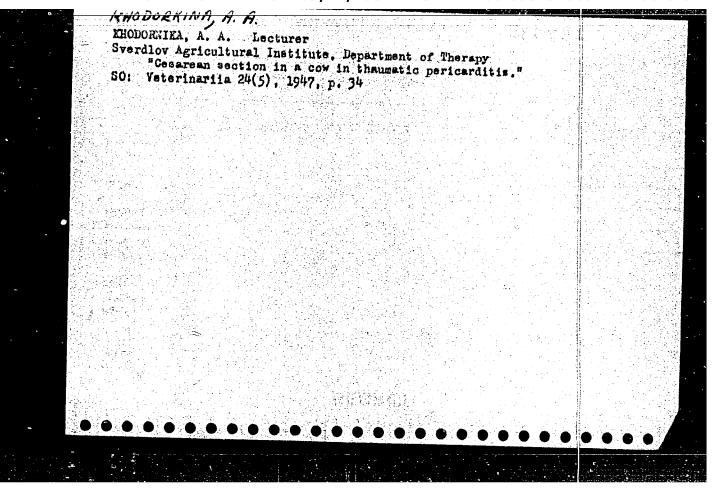
REF SOURCE: Tr. Leningr. korablestroit. in-ta, vyp. 48, 1965, 47-53

TOPIC TAGS: boundary layer suction, laminar boundary layer, body of revolution

ABSTRACT: The basis parameters of a lamination system with suction are the distance between cracks, the total discharge and local discharge through each crack, the width of the crack and its structural shape. Calculation of these parameters for wing profiles and bodies of revolution is labor consuming. These parameters can be determined with sufficient accuracy for an equivalent flat plate. The distance between cracks for the flat plate, and the discharge of fluid through a running meter of a crack are calculated. The coefficient of full function resistance for an equivalent flat plate is determined on the part of the length of which fluid is sucked from the boundary layer. Orig. art. has: 7 figures. Bibliography has 7 references. [Translation of abstract]

Cord 1/1 SUB CODE: 20/

UDC: 629, 12:532



EHODORIHA, A.A., detsent; RASSANOVA, T.A., assistent; STARODUHOVA, Z.N., assistent.

Saprepelic mud therapy in neninfectious internal diseases in farm animals and poultry. Veterinariia 32 no.12:49-52 D \*55.

1.Sverdlevskiy sel'skekhesysystvonnyy institut.
(RARTHS, MEDICAL AND SURGICAL USES OF)(VETERINARY MEDICINE)

KHODORKINA, A.A.

USSR/Human and Animal Physiology Blood Circulation. General Problems.

T-5

Abs Jour : Ref Zhur - Biol., No 10, 1958, 46016

Author

: Khodorkina, A.A.

Inst

: Moscow Veterinary Academy.

Title

: Age Determined Changes in the Volume of Circulating Blood and in Some Hematologic Indicators in Healthy

Cattle of the Middle Urals.

Orig Pub

: Tr. Mosk. vet. akad., 1957, 19, No 1, 497-523

Abstract

: No abstract.

Card 1/1

- 42 -

KHODO		COVSKIY, A.L.	
: 	:	Automatic centering machines. Avt.prom. 28 no.12:35 D	162.
			(MIKA 10:1)
		(Machine tools)	$\frac{1}{\sqrt{2}} \left( \frac{1}{\sqrt{2}} + \frac{1}{\sqrt{2}} \right)$
	si ja		
	-		
	. •		•

KHODORKOVSKIY, I.Ya., insh.; YUDKIN, V.F., insh.; KOMEY, L.L., insh.;

ZERNIN, F.I., otv. sa vypusk; SEMCHENKO, G.V., red.izd-va;

SUKMADOVA, K.G., tekhn.red.

[Becommendations for the improvement of harvesting mechinery]

Rekomendataii po usovershenstvoveniiu tekhniki, ispol'suemoi

na uborko uroshaia. Perm', Permskoe knizhnoe izd-vo, 1960.

32 p. (MIRA 14:1)

1. Perm (Province). Upravleniye sel'skogo khosyaystva.

(Harvesting machinery)

Determining the mathematical st	optimal depth o atistic methods.	f ore dressing Gor. shur. no	with the help	) of 65.
1. Vsesoyusnyy	nauchno-issledov obrabotki polesm	atellekiv i m	() 	IRA 18:7)

SAKHAROVA, T.M., kand.tekhn.nauk; KHODORKOVSKIY, N.A.

Norms on crosstalk attenuation in long-distance low-frequency telephone cables. Vest. sviazi 22 no.9:9 S '62. (MIRA 15:9)

1. Starshiy insh. Kiyevskogo otdeleniya TSentral'nogo nsuchno-isəledovatel'skogo instituta svyazi Ministerstva svyazi SSSR (for Khodorkovskiy).

(Telephone lines)

Subject : USSR/Aeronautics - training

Card 1/1 Pub. 135 - 8/26

Khodorkovskiy, S. M., Eng.-Maj. Author

Title : Practice in a ground trainer for special cases of

flight.

Periodical: Vest. vozd. flota, 11, 40-43, N 1956

Abstract

The author gives a description of a ground trainer which permits the pilot to practice in operation of engine under various conditions of flight. Two photos, 2 diagrams. The article is of informative value.

AID P - 5222

Institution: None

Submitted No date

KHODORO	V, A.			
	Physicist and lyr no.3:13-14 Mr	ic poets at a round table.	Znansila	38 (MIRA 16:10)

## KHODOROV, B.

USSR/Human and Animal Physiology - Neuro-Muscular

Physiology.

Abs Jour

: Ref Zhur - Biol., No 1, 1958, 4358

Author

: T. Vinogradova, V. Gurfinkyel', Ya. Slavutskiy,
B. Khodorov

Pin state suppose supplier the bost of the

Inst

Central Institute of Prosthetology the priviletia fivelipse transfer too, as a

Title

: A Physiological Analysis of Walking with an Artificial

Limb after Removal of the Femur.

Orig Pub

: In: 5-aya nauchnaya sessiya Tsentr. n.-i. in-ta protye-

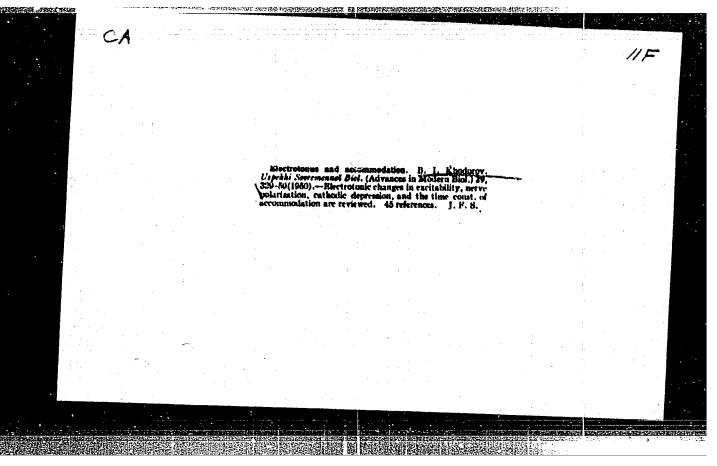
zir. i protyezostroyeniya, M., 1956, 155-169

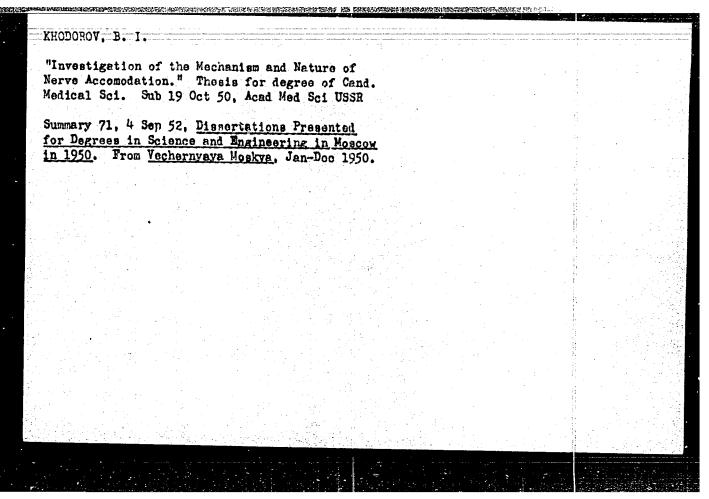
Abstract

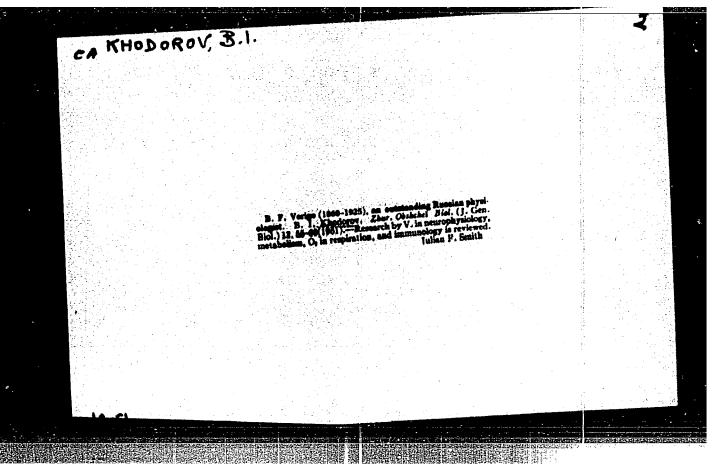
: The use of a prosthesis after the shelling out of the .. femur is possible thanks to a series of compensatory mechanisms: unbending in the pelvo-femoral joint of the healthy leg simultaneously with the bending in the

lumbar region of the vertebral column; increased

Card 1/2







KHODOROV. B. I.

USSR/Hadicine - Blood Substitutes

Nov/Dec 53

"Utilization by the Organism of a Protein Preparation, Nonanaphylactic Serum 24 (I), on its Intravenous Administration, N.A. Fedorov, A. Ye. Gurvich, V. M. Rodionov, B. I. Khodorov, Lab of Norm and Pathol Physiol, Inst Biol and Med Chem, Acad Med Sci USSR, Moscow

Vop Pit, Vol 12, No 6, pp 16-21

I is a heterogenous serum which has been treated chemically in order to remove its anaphylactogenic properties. This serum is to be used for parenteral natrition. It can be used as a protein blood substitute. Testing on dogs showed that I is harmless and furnishes good protein nutrition. Rapid administration of excessive doses leads to disturbances in the functioning of the liver and kidneys, however.

## KHODOROV, B.I. (Moskva)

Effect of conditioned reflex on the size of unconditioned protective motor reflexes in dogs. Zhur.vys.nerv.deiat. 4 no.6:852-861 N-D '54. (MIRA 8:7)

eff. on unconditioned defense reflex in dogs)
(HEFLEXES,
defense unconditioned reflex, eff. of conditioned reflex in dogs)

USBR/Medicine - Neurophysiology

KNOTO 40V F 1 - Gard 1/1 Pub. 154-8/18

Author

Khodorov, B. I. (Moscov)

Title

Effects of a conditioned stimulus when it is used in the background of

an unconditioned reflex.

Periodical:

Zhur. vys. nerv. deyat., 5, 61-69, Jan/Feb 1955

Abstract

A conditioned stimulus, connected with an already initiated unfonditioned motor-protective reflex, integrates with the unconditioned reflex producing a motor effect. The magnitude of this motor reaction depends both on the intensity of the conditioned stimulus and the magnitude of the unconditioned reflexes. The motor conditioned effect usually generates in the background of an unconditioned reflex with considerably greater speed and shorter latent period than a conditioned reflex caused by action of isolated conditioned stimuli. In some cases application of conditioned stimuli in the background of an unconditioned reflex may result in partial inhibition of this unconditioned reflex. Six diagrams. Four-

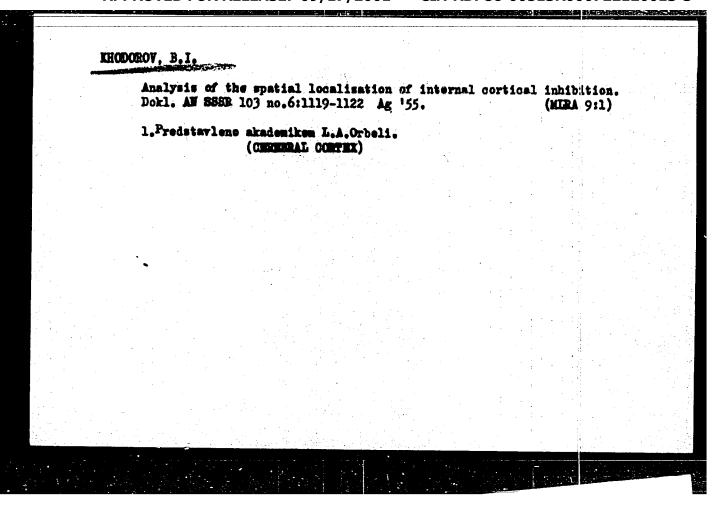
teen Soviet references

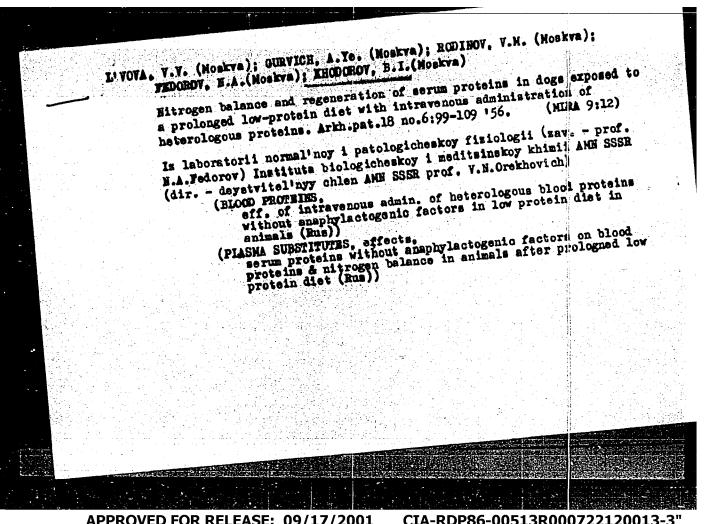
Institution

Submitted :

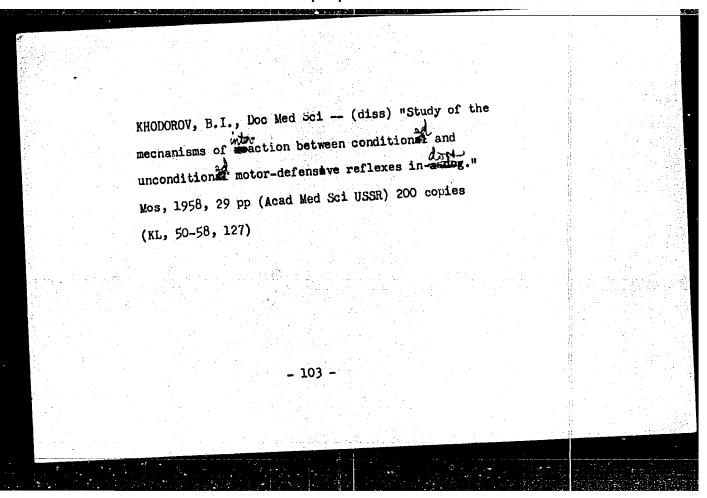
August 2, 1953

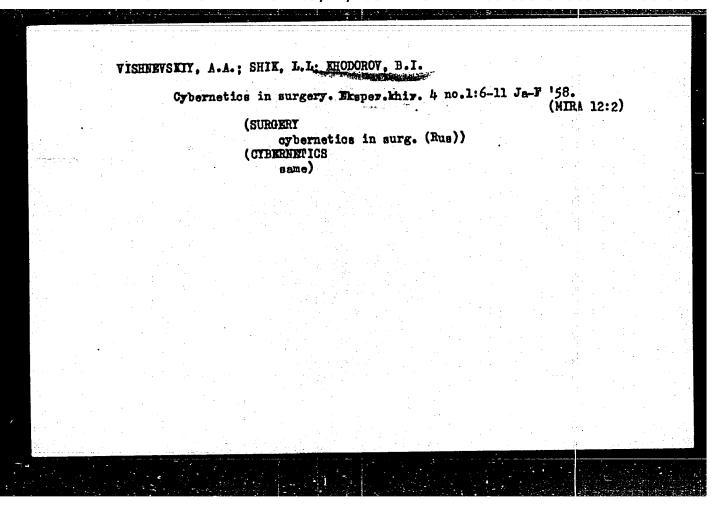
ussk/medicine - Hig	her I	lervous Activity	ID-2792
Card 1/1	. <b>P</b> ı	ub 154-13/19	· · · · · · · · · · · · · · · · · · ·
Author	:	Khodorov, B. I., Moscow	· · · · · · · · · · · · · · · · · · ·
Title	:	Change in a conditioned reflex as a reaction unconditioned one	to a similar
Periodical	:	Zhur. vys. nerv. deyat. 5, 262-270, Mar-Apr 1	955 ·
Abstract	•	Investigated the effect of the force and dura unconditioned stimulus preceding a conditione the degree of that reflex. [Graphs. Eleven r all USSR (6 since 1940).	d reflex on
Institution	:		
Institution Submitted	:	December 11, 1953	
	:	December 11, 1953	
	•	December 11, 1953	
	:	December 11, 1953	



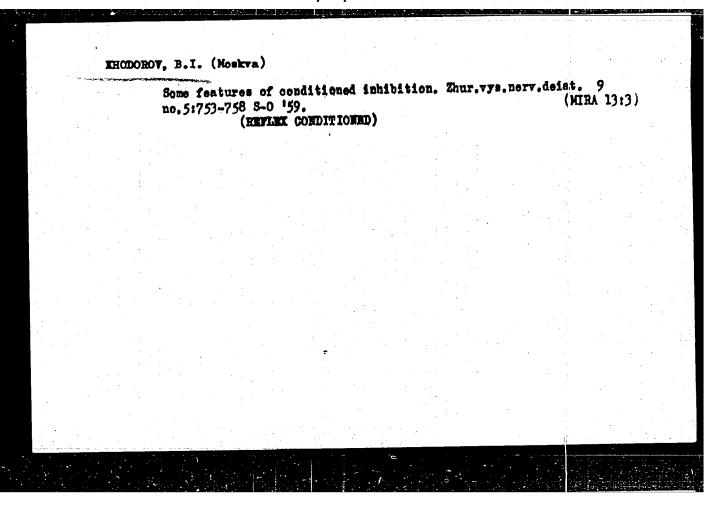


APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722120013-3"





## Studies on the precess of formation of defense motor conditioned reflex in dog; conditioned reflex and dominance [with summary in English]. Zhur.vys.nevr. deiat, 8 no.61887-895 N-D '58 (MIRA 12:1) (REFLEX, CONDITIONED, form of defense motor reflexes in dogs, stages (Rus))



17 (1) AUTHOR:

Khodorov, B. I.

807/20-127-6-46/51

TITLE:

Variation in the Force of an Unconditioned Reflex as the Basis for Formation of a Temporary Nervous Connection

PERIODICAL:

Doklady Akademii nauk BSSR, 1959, Vol 127, Nr 6, pp 1308 - 1311

(USSR)

ABSTRACT:

The author describes new experimental results concerning the rules of formation of conditioned motor defence reflexes. On the basis of an analysis of these results, he arrives at the conclusion that the most important condition for the formation of a complete temporary connection in the cerebral hemispherical cortex is a combination of the effect of an indifferent agent with the variations in force of an unconditioned irritation. The formation of a conditioned reflex in the case of an indifferent irritation preceding an unconditioned reflex (Refs 4,8) is a special case of this general rule; a temporary connection can also be formed in a combination of an indifferent agent with the strengthening of an unconditioned irritation which is already acting (i.e. which started before the indifferent one). "A coalition of irritations from 2 cortical points", which is necessary for the formation of a conditioned

Card 1/4

Variation in the Force of an Unconditioned Reflex as SOV/20-127-6-46/51 the Basis for Formation of a Temporary Nervous Connection

reflex (Ref 10), does not only take place in ordinary combinations of irritations but also - contrary to usual concepts also in the case of superpositions. On the other hand, a conditioned reflex is not formed if, in the latter case, the moment of formation of unconditioned excitation does not participate. M e t h o d . 6 dogs were used for the experiments; they were treated by the motor electric defence method. 2 types of combination of the indifferent (bell, sound or light) and of the unconditioned irritation: a) ordinary superpositions, and b) so-called "superpositions with intensification" (Refs 13 v,g,d), were used. The indifferent agent was applied, in ordinary superpositions, on the background of an unconditioned irritation (5 sec after the beginning of the latter). After this, the force of the unconditioned irritation was not changed. In contrast to the above, in the case of "superposition with intensification", every application of indifferent irritation on the background of the unconditioned one was accompanied by a sudden intensification (by 1.5 - 2 fold) of the acting electric skin irritation. The time interval between the

Card 2/4

Variation in the Force of an Unconditioned Reflex as the Basis Yor Formation of a Temporary Nervous Connection 507/20-127-6-46/51

application of the indifferent agent and the intensification of current was 1 second in general. The results are separately indicated for the cases A) and B). Figures 1-3 show the kymograms recorded for the dogs. A) An unconditioned background irritation neither prevents the reception of indifferent irritation by the cortex (of Refs 1,2,7) nor the continuation of the excitation originated in the analyzer to the center of the unconditioned reflex. B) The intensification of the unconditioned electric skin irritation immediately after an indifferent (or even inhibitory) irritation led to the formation of a conditioned motor defence reflex. A preceding unconditioned irritation neither prevented the formation nor the fixation of this temporary connection (Refs 2,4-7). From this, the author concludes that neither the force of the unconditioned irritation nor its duration, but the very fact of the temporary variation in this force, is the factor which plays a decisive part in the formation process of the conditioned reflex. There are 3 figures and 13 references, 12 of which are Soviet.

Card 3/4

Variation in the Force of an Unconditioned Reflex 80V/20-127-6-46/51 as the Basis for Formation of a Temporary Nervous

Connection

ASSOCIATION: Institut khirurgii im. A. V. Vishnevskogo Akademii meditsinskikh

nauk SSSR (Institute of Surgery imeni A. V. Vishmevskiy of the

Academy of Medical Sciences, USSR)

PRESENTED: April 30, 1959, by I. S. Beritashvili, Academician

SUBMITTED: April 9, 1959 ·

Card 4/4

KHODOROV, E.I., Dr. and Tri -- (circ) "Interaction mechanisms of concitioned and unconditioned defensive motor reflexes," Moscow, 1960, 28 pp (Institute of Higher Nervous Activity, AS USSR) (KL, 36-60, 117)

# Features of the summation of excitations at the moment of unconditioned reinforcement of the conditioned reflex. Biul. eksp. biol. i.med. 49 no.1:3-7 Ja '60. (MIR. 13:7) 1. Is fiziologicheskoy laboratorii (mam. - prof. L.L. Shik) Instituta khirurgii imeni A.V. Vishnevskogo (dir. - deystvitel'nyy chlen AMN SSSR A.A. Vishnevskiy) AMN SSSR, Moskva. Predstavlena deystv. chlenom AMN SSSR V.M. Chernigovskim. (GONDITIONED RESPONSE)

## KHODOROV, B.I.

Extinction and differentiation of conditioned reflexes induced against a background of unconditioned stimulation; analysis of the mechanism of appearance and localization of internal inhibition during retrograde conditioning. Biul. eksp. biol. 1 med. 50 no.7:7-12 Jl '60, (MIRA 14:5)

1. Iz fiziologicheskoy laboratorii (zav. - prof. L.L.Shik)
Instituta khirurgii imeni A.V.Vishnevskogo (dir. - deystvitel'nyy
chlen AMN SSSR A.A.Vishnevskiy) AMN SSSR, Moskva. Predstavlena
deystvitel'nym chlenom AMN SSR P.S. Kupalovym.

(CONDITIONED RESPONSE)

VISHNEVSKIY, A.A.; KHODOROV, B.I.

Physiological mechanism of the direct action of novocaine on a nerve. Eksper. khir. 4 no.6:3-10 N-D '59. (MIRA 14:6)

1. Iz Institute khirurgii imeni A.V.Vishnevskogo (dir. - deystvitel'nyy chlen AMN SSSR prof. A.A.Vishnevskiy) AMN SSSR.
(NOVOCAINE) (NERVES)

WHODOROV, B.I.

"Physiological electrotoms of single nodes of Ranvier."

Physiological electrotoms of single nodes of Ranvier."

Report submitted, but not presented at the 22nd International Congress of Physiological Sciences.
Leiden, the Netherlands 10-17 Sep 1962

# Problem of the excitability and the correlation between the resting potential and the critical potential of the membrane. Usp.sovr.biol. 54. no.3433-354, N-D '62, (MIRA 16:1) (ELECTROPHYSIOLOGY) (MEMERANES(BIOLOGY))

## KHODOROV, B. I.

Dissertation defended in the Institute of Higher Nervous Activity and Neurophysiology for the academic degree of Doctor of Medical Schences:

"Reaction Mechanisms of Conditional and Nonconditional Defensive Motor Reflexes."

Vestnik Akad Nauk No. 4, 1963, pp. 119-145

KHODOROV, B.I.; BELYAYEV, V.I.

Role of the degree of local response increase in the generation of the action potential of a single Ranvier's node in an isolated frog nerve fiber. Biofizika 8 no.4:461-466 '63.

(MIRA 17:10)

1. Institut khirurgii imeni Vishnevskogo AMN SSSR, Moskva.

## KHODOROV, B.I.; BELYAYEV, V.I.

Modification of the level of critical depolarization and the action potential of electrotonus in a single Ranvier's node under the condition of the ionic effect of cadmium and nickel. Biofizika 8 no.6:707-714 63. (MIRA 17:7)

1. Institut khirurgii imeni A.V. Vishnevskogo AMN SSSR, Moskva.

KHODOROV, B.I.; BELYAYEV, V.I.

Generation of action potentials in single Rangier's nodes of isolated frog nerve fibers under the influence of nickel and cadmium ions. Biul. eksp. biol. i med. 57 no.4:3-8 Ap '64.

(MIRA 18:3)

l. Fiziologicheskaya laboratoriya (zav. - prof. L.L. Shik) Instituta khirurgii imeni Vishnevskogo (dir. - deystvitel'nyv chlen AMN SSSR prof. A.A. Vishnevskiy) AMN SSSR, Moskva. Submitted April 13, 1963.

O <sub>N</sub> N <sub>2</sub> -1 <sub>1</sub> (r <sub>-m</sub> )A.Rec	Reproperties erredt er michel end cadmin ions upon the se neder of Parking Thistologic é no Corstole? Mai 164.		
	3. Produkaja berakaja Taborakonija Instituta bilmugli APN Makasa.	(MIRA 18:8) N essr,	

KHOLORO7, B.I., BELYAYEV, V.I.

Study of the mechanism of novocaine effect on the electrical activity of a single Ranvier's node. Biofizika 10 no.4: 625-633 165. (MIRA 18:8)

1. Institut khirurgii im. A.V. Vishnevskogo AMN SSSR, Moskva.

KHODOROV		
	"Heat transfer in rotating furnaces."	
	report submitted for 2nd All-Union Conf on Heat & Mass Transfer, Mins May 1964.	sk, 4-12
	All-Union Aluminum & Magnesium Inst.	

and the second s	After the transition to S '57'.	the seven-hour workday.	Sots.trud no.9:98-105 (MIRA 10:9)
	1. Nachal'nik otdela tri zavoda (for Dmitriyev). Lenina (for Khodorov).	da i zarabotnov platy Vt 2. Direktor Obukhovskov	orogo chasovogo fabriki imemi
	mentua (for wiodotoa).	(Hours of labor)	

Glorious centenary. Tekst. prom. 20 no. 11:83 N '60.

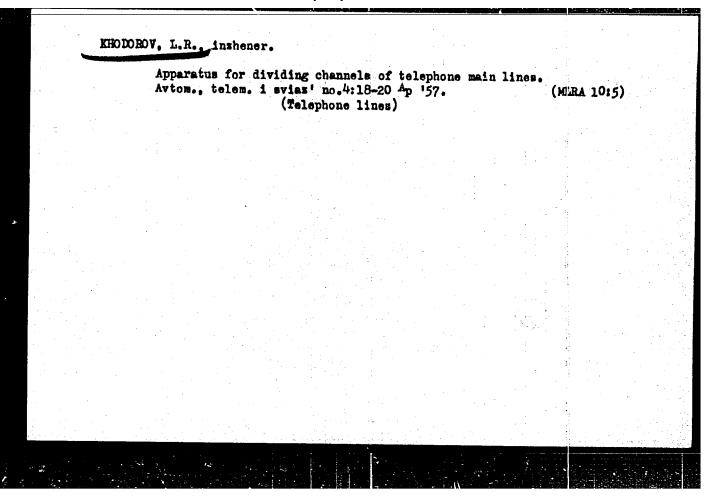
(MIRA 13:12)

(Obukhovo—Rugs and carpets)

BRYLEYEV, A.M., laureat Stalinskoy premii, inshener; GAMBURG, Ye.Yu., inshener, retsensent; GOLOVKIB, M.K., inshener, retsensent; KAZAKOV, A.A., kandidat tekhnicheskikh nsuk, retsensent; KUT'IN, I.M., do tsent, kandidat tekhnicheskikh nsuk, retsensent; IEONOV, A.A., inshener, retsensent; SEMENOV, N.M., laureat Stalinskoy premii, inshener, retsensent; CHERNISHEV, V.B., inshener, retsensent; VALUYEV, G.A., inshener, retsensent; METTAS, N.A., laureat Stalinskoy premii, inshener, retsensent; MOVIKOV, V.A., dotsent, retsensent; PIVOVAROV, A.L., inshener, retsensent; POGODIN, A.M., inshener, retsensent; EHODOROV, L.R., inshener, retsensent; PIVOVAROV, A.L., inshener, retsensent; EHODOROV, L.R., inshener, retsensent; SHUPLOV, V.I., kandidat tekhnicheskikh nsuk, retsensent; KLYKOV, A.F., inshener, retsensent; YUDZON, D.M., tekhnicheskiy redaktor; VERIMA, G.P., tekhnicheskiy redaktor.

[Technical handbook for railroad men] Tekhnicheskii spravochnik shelesnodoroshnika. Vol. 8. [Signaling, central control, block system, and communication] Signalisatsiia, tsentralisatsiia, blokirovka, svias'. Red. kollegiia A.F.Baranov [i dr.] Glav.red. E.F.Budoi. Moskva, Gos. transp. shel-dor. isd-vo, 1952. 975 p. (Card 2) (MLRA 8:2) (Railroads-Signaling) (Railroads-Gommunication systems)

BARANOV, A.F., redaktor; BIZYUKIN, D.D., redaktor; VAKHNIN, M.I., otvetstvennyy redaktor toma, professor, doktor tekhnicheskikh nank; VEDENISOV, B.N., redaktor; IVLIYEV, I.V., redaktor; MOSHCHUK, I.D., redaktor; RUDOY, Ye.F., glavnyy redaktor; SOKOLIESKIY, Ya.I., redaktor; SOLOGUBOV, V.H., redaktor; SHILLEVSKIY, V.A., redaktor; ALFEROV, A.A., inshener; AMASHKIN, B.T., inshener; AFANAS'YEV, Ye.V., laureat Stalinskoy premii, inzhener; BELENKO, K.M., dotsent; BORISOV, D.P., dotsent, kandidat tekhnicheskikh nauk; ZHIL'TSOV, P.N., inshener; ZBAR, N.R., inshener; IL'YENKOV, V.I., dotsent, kandidat tekhnicheskikh nauk; KAZADV, A.A., kandidat tekhnicheskikh nauk; KRAYZMER, L.P., kandidat tekhnicheskikh nauk; KOTLYARENKO, N.F., dotsent, kandicat tekhnicheskikh nauk; MAYSHEV, P.V., professor, kandidat tekhnicheskikh nauk; MARKOV, M.V., inchener; MELEPETS, V.S., dotsent, kandidat tekhnicheskikh namk; MOVIKOV, V.A., dotsent; ORIOV, H.A., inzhener; PETROV, I.I., kandidat tekhnicheskikh nauk; PIVKO, G.M., insherier; PO-GODIN, A.M., inshener; RAMLAU, P.N., dotsent, kandidat tekhnicheskikh nauk; ROGINSKIY, V.H., kandidat tekhnicheskikh nauk; RYAZANTSEV, B.S., laureat Stalinskoy premii, dotsent, kandidat tekhnicheskikh nauk; SHARSKIY, A.A., inshener; FEL'DEAN, A.B., inshener; SHASTIN, V.A., laureat Stalinskoy premii, inshener; SHUR, B.I., inshener; GONCHUKOV, V.I., inshener, retsensent; HOVIKOV, V.A., dotsent, retsensent; AFA-HAS YEV, Ye. V., laureat Stalinskoy premii, retsenzent; [Technical handbook for railroad men] Tekhnicheskii spravochnik shelesnodoroshnika. Vol. 8. [Signaling, central control, block system, and communication] Signalizateiia, teentralizateiia, blokirovka, svias!. Red. kollegiia A.F.Baranov [i dr.] Glav.red. E.F.Rudoi. Moskva, Gos. transp. shel-dor. isd-vo, 1952. 975 p. (Continued on next card)



Seniar on new communications equipment. /vtor.telem.i svinz' no.8:01 Ag '57. (thun 10:0)  1. Glavnyy inshener TSentral'ney steronti cvyazi licinterstya jutay medahcheniya.  (RailrendsCommunication nesters)	 יים מימים ביייים	
Sevinar on new communications equipment. Automitelemi svinz' no.8:41 Ag '57. (that io:8)  1.Glevnyy inshener "Sentral'now stee buil byyazi linisterstyn sutor soobshcheniya.	Anciono	
putoy scabshcheniya,	·	Sevinar on new communications equipment. Avtor. telem. i svinz'
		inter soobshcheniya.

KHODOROV, L.R.; SAFRONOVA, A.V.

Semiautomatic method of interconnecting principal telephone communication channels. Aytom, telem. 1 syias 4 no.10:15-16 0 60.

(NINA 13:10)

l. Zamestitel' nachal'nika TSentral'noy stantsii svyazi Ministerstva putey soobshcheniya (for Khodorov). 2. Starshiy inzhener TSentral'noy stantsii svyazi Ministerstva putey soobshcheniya (for Safronova).

(Telephone, Automatic)

PIVKO, G.M.; ARKHIPOV, P.S. [deceased]; MEDVEDNIKOV, M.N., insh., retsenzent; USTIMENKO, P.I., insh., retsenzent; KHODOROV, L.R., insh., retsenzent; NCVIKAS, M.N., inzh., red.; KHITROV, P.A., tekhn. red.

[Manual on railroad wire communication equipment] Sprayochnik po apparature transportnoi provodnoi sviazi. Moskva, Transportnoi provodnoi provodno

KHODOE	δV,P.M.
USER/ Chemis	rry - Physical chemistry
Gard - 1/1	Pùb. 22 35/60
Authors 1	Tager, A. A., Krivokorytova, R. V., and Khodorov, P. M.
Title ,	Heats of solution of polystyrence of different molecular leight and the packing density of stable chains
Periodical :	Dok: AN SSSR 100/4, 741-743 Feb 1. 1955
Abstract .	The integral heats of solution were determined for various benzene and for a hydrogenated polysterene monomer - ethyl benzene. The results indicate that polystyrene with a molecular weight of about 1000 dissolves in benzene and in sthyl benzene with a zero thermal effect. It was observed that the low-molecular polystyrene dissolves hydrogenated monomer - ethyl benzene - with a zero thermal effect which indicates that the packing density of the low-molecular polystyrene is
	close to the packing density of ethyl benzene molecules. An increase in molecular weight was observed to be followed by a considerable increase in the heat of solution. Four references: 3 USSR and 1 USA (1950-1954). Table; graph.
Institution i	The A. M. Gorkly Urel State University
Presented by:	Academician V. A. Kergin, August 17, 1954

International conference of communication workers. Avtom. telem. i svias' 3 no.8:14 Ag '59. (MIRA 13:2)

1. Glavnyy inshener TSentral'noy stantsii svyasi Ministerstva putey soobshcheniya.

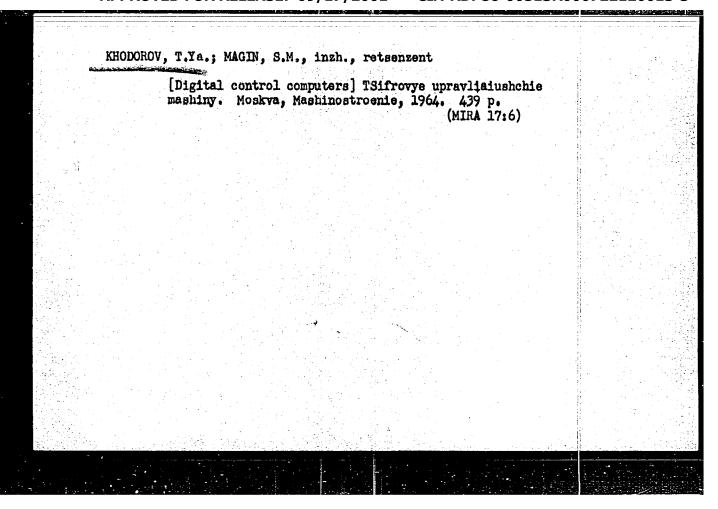
(Communication and traffic—Congresses)

KHODOROV, S.A., kandidat tekhnicheskikh nauk.	
Scientific session of the Kiev Polytechnical Institute devoted the 50th anniversary of its foundation. Elektrichestvo no.1:83  Ja 149. (MLRA 7:1)	
(KievEngineeringStudy and teaching) (EngineeringStudy and teachingKiev)	: :

BUDNITSKIY, A.B.; VENIKOV, V.A.; GIZILA, Ye.P.; GREBEN', I.I.;
IYERUSALIMOV, M.Ye.; KALNIBOLOTSKIY, M.L.; KONDRA, B.N.;
LOYEV, Ye.G.; NESTERENKO, A.D.; PAVLOV, V.M.; POSTNIKOV, I.M.;
POHEGAYLO, K.M.; RADCHENKO, L.A.; SVECHNIKOV, L.V.; SYROMYATNIKOV,
I.A.; FEDOSEYEV, A.M.; FEDCHENKO, I.K.; KHODOROV, S.Ye.;
CHIZHENKO, I.M.; TSUKERNIK, L.V.

Professor Vasilii Grigor'evich, 1904 -; on his 60th birthday, Elektrichestvo no.4:93-94 Ap '64. (MIRA 17:4)

Chastotnyye iskazhyeniya pri vosproievyedyenii odnokratnykh protsyessov. Elyektrichyestvo, 1949, No. 9, s. 30-32
SO: LETOPIS' NO. 40



LV:LES E. (O/ANSVA/ERO)/AND)/	THE STATE OF THE PERSON NAMED IN	
Processor 1: 14:  Recession at symmetry Road Exhibit	The state of the s	8/ 3/ 811
Digital control computers (751frovyeve upr "Hashingstroveniye", 1964, 430 p. 111u	billio. 8,200 copies pri	ted.
PURPOSE AND COVERAGE: This book is devoted puters. It examines the principles, circuid digital computers. The various semponents	its, and component design of of the machine are described	es well as
On the sequential of the connect of the control of	information sources and the the control computers, their the dynamics of computer ope to a consideration of the fe	menanism programming, ration are atures of
computers compared to universal of control computers compared to universal of control computers of control with a computer of automatic	ital computers and commonth lied objects. The book is a secession and use of digital	o for con- nvended for control
yorkers in instrument construction and to co-cuter subbology and automations	todents studying instrument	construction,

ACTESS OF AN ANTICOMY	
ZARIE OF CHICATE AD-LOCAL	
West Indications and a second	
	LAND A SERVICE STATE OF STATES 5
Col. SEP. Burelant Claims (A)	
Provide the components of the	
The Control of the Co	
	sed complete components == 253
the edge Propresenting southern marries	THE WITTEN COMMENT CORRESPONDED AND THE
Ch. XIV. Accuracy of a digital control	
(B) (T) Beliability () control ments	es # 383   C.   Marie   Marie

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722120013-3

<b>25</b> 1.		إنسطال المساكر			
	A CONTRACTOR OF THE STATE OF TH				
•					
	THE COME TO	STEPL TEN LO	Keres Salarate	374 52	
	mesi oh				
		3,2,52,32,5,32,53,32,53,3		10 11 11 11 11 11 11 11 11 11 11 11 11 1	
	Frankling Commencer			and the second second is	
				O	
	2010 2011 372				
		<b>建設等的基礎的</b>	Shiden was a second or second and a second	MPA, AND DESCRIPTION OF THE PARTY OF	
· · ·	19.10 · 19.10				

ACC NR. AP5027902 SOURCE CODE: UR/0103/65/026/	011/2068/2071
AUTHOR: Khodorov, T. Ya. (Leningrad)	36
ORG: None	B
TITLE: The evaluation of piecewise-linear in the approximations by digital of	y mnutera
SOURCE: Avtomatika i telemekhanika, v. 26, no. 11, 1985, 2088-2071	
TOPIC TAGS: digital computer, computer input unit, computer memory, complinear approximation, function analysis	n ter storage,
ABSTRACT: In the case of digital computers operating in real time the computer should be formulated with the aim of achieving the fastest possible operation. It solved by such computers the most time consuming are the evaluations of element and tabulated functions, and any speeding up of such calculations is highly desire control units also usually contain a long-range memory which may store tables values of such functions. This allows a fast calculation by the method of linear The present article discusses the criteria for the choice of steps during the estable piecewise-linear approximations, determines the computational errors during allow of the functions, and outlines a method for their accelerated interpolation computations on digital control machines. The approach is illustrated by a brief orig. art. has: 12 formulas, 1 figure, and 1 table.	d problems litary analytic ble. Digital of particular interpolation. blishment of ng the evalu-
SUB CODE: DP, MA / BUBM DATE: 18Nov64	6: 681.142.32

KHODOROV, Tegdor. Jakovlevich; HOVOSEL'TSEV, Ta.V., nauchnyy red.;

VKASCVA, Z.V., red.; EHISHKOVA, L.M., tekhn.red.

[Electromechanical inductive calculating systems] Elektromekhanicheakie induktsionnye schetno-reshaiushchie ustroistva.

Leningrad, Gos. soiusnoe isd-vo sudostroit.promyshl., 1960.

182 p. (Electronic calculating machines)

(Electronic calculating machines)

33766 S/103/62/023/001/004/014 D201/D304

16.4000 [1121,1031,1329)

AUTHOR:

Khodorov, T.Ya. (Leningrad)

TITLE:

The problem of functional design of digital controllers

PERIODICAL: Avtomatika i telemekhanika, v. 23, no. 1, 1962, 45-51

TEXT: The author considers three circuits of digital controllers which result in the required speed of operation with the minimum speed of operation of its component parts and at the same time make it possible to divide the control problem into a minimum number of simple computing operations. The control is assumed to have a general form of

 $F_{1}(\mu_{1}, \mu_{2}, \dots, \mu_{m}, \lambda_{1}, \lambda_{2}, \dots, \lambda_{n}, q_{1}, q_{2}, \dots, q_{k}) = 0,$   $F_{2}(\mu_{1}, \mu_{2}, \dots, \mu_{m}, \lambda_{1}, \lambda_{2}, \dots, \lambda_{n}, q_{1}, q_{2}, \dots, q_{k}) = 0,$   $F_{k}(\mu_{1}, \mu_{2}, \dots, \mu_{m}, \lambda_{1}, \lambda_{2}, \dots, \lambda_{n}, q_{1}, q_{2}, \dots, q_{k}) = 0.$ (1)

In it  $\mu_1$ ,  $\mu_2$ , ...,  $\mu_m$  are given quantities determining the operation of the object to be controlled,  $\lambda_1$ ,  $\lambda_2$ , ...,  $\lambda_n$  - quantities Card 1/4

33766 S/103/62/023/001/004/014 D201/D304

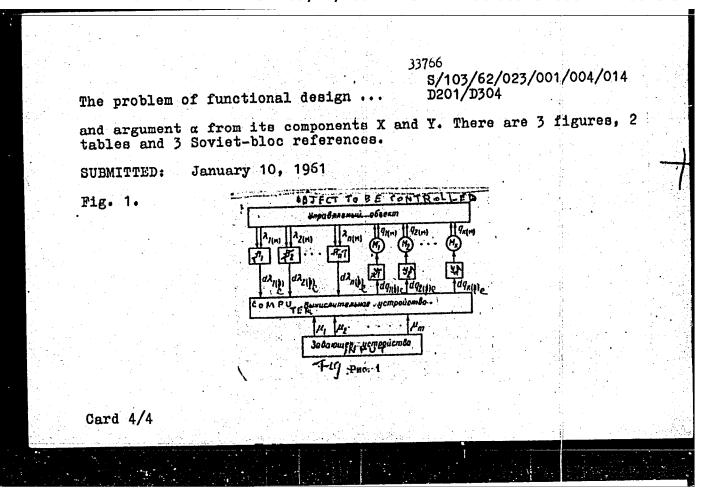
The problem of functional design .

which characterize the regulating process or information transmitted from the controlled object to the controller,  $q_1$ ,  $q_2$ , ...,  $q_k$  the wanted quantities evaluated by the controller and transmitted as control inputs to the controlled object. To find  $q_1$ ,  $q_2$ , ...,  $q_k$  the system (1) must be transformed into a form suitable for the necessary computations. This new form of system equations depends on the structural diagram of the controller. Three circuits are analyzed. 1) Fig. 1. The controller is in the form of a digital differential analyzer (DDA). The circuit of the DDA consists of a computer, an arrangement for producing outputs  $\mu_1$ ,  $\mu_2$ , ...,  $\mu_m$ , transducers,  $T_1$ ,  $T_2$ , ...,  $T_n$  for introducing  $\lambda_1$ ,  $\lambda_2$ , ...,  $\lambda_n$  and amplifiers  $\lambda_1$ ,  $\lambda_2$ , ...,  $\lambda_k$  with motor stages  $\lambda_1$ ,  $\lambda_2$ , ...,  $\lambda_k$  for  $q_1$ ,  $q_2$ , ...,  $q_k$ . 2) The controller is in the form of a general purpose digital computer (DC) in which all operations are reduced to the simplest arithmetic, so that all mathematical dependences are presented in the form of a system of algebraic equations. With this method of

Card 2/4

33766 8/103/62/023/001/004/014 D201/D304

The problem of functional design ... D201/D304 solution the mechanical quantities  $\lambda_1(M)$ ,  $\lambda_2(M)$ , ...,  $\lambda_n(M)$  are transformed by transducers  $T_1(1)$ , ...,  $T_n(1)$  into codes  $\lambda_1(e)$ , ...,  $\lambda_n(e)$  and the codes of computer magnitudes  $q_1(e)$ , ...,  $q_k(e)$  are processed by follow-up systems with amplifiers  $A_1$ ,  $A_2$ , ...,  $A_k$ , motors  $M_1$ ,  $M_2$ , ...,  $M_k$  and transducers  $T_1(2)$ ,  $T_2(2)$ , ...,  $T_k(2)$ ,  $T_k(2)$  ...,  $T_k(2)$ 



KHODOROV, BRUSILOVSKAYA, D.; BURNISTROV, T.; GLASYRINA, L.; KARAULOVSKIY, N.; In memory of V.M. Vasilevskii. Trudy Vses. ob-va fixiol., biokhim. i farm. 3:166-168 '56 (MIRA 10:4) (VASILEVSKII, VIKTOR MIKHAILOVICH, 1907-1954)

